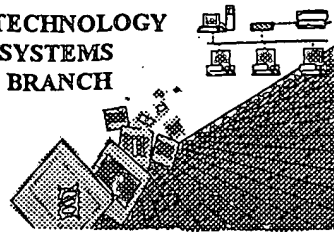


## RAW SEQUENCE LISTING ERROR REPORT

BIOTECHNOLOGY  
SYSTEMS  
BRANCH



RECEIVED  
MAR 27 2002  
GENETIC 1000/2300

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/757,333C  
Source: 1619  
Date Processed by STIC: 3/21/02

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER  
VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND  
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name,  
Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,  
2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office,  
Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

# Raw Sequence Listing Error Summary

RECEIVED  
MAR 27 2002  
TECH CENTER 1600/2900

## ERROR DETECTED

## SUGGESTED CORRECTION

SERIAL NUMBER: 09/757,333C

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1      Wrapped Nucleics  
    Wrapped Aminos      The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2      Invalid Line Length      The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3      Misaligned Amino  
    Numbering      The numbering under each 5<sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4      Non-ASCII      The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5      Variable Length      Sequence(s)      contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6      PatentIn 2.0  
    "bug"      A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s)     . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7      Skipped Sequences  
    (OLD RULES)      Sequence(s)      missing. If intentional, please insert the following lines for each skipped sequence:  
    (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
    (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  
    (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
    This sequence is intentionally skipped  
  
    Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8      Skipped Sequences  
    (NEW RULES)      Sequence(s)      missing. If intentional, please insert the following lines for each skipped sequence.  
    <210> sequence id number  
    <400> sequence id number  
    000
- 9      Use of n's or Xaa's  
    (NEW RULES)      Use of n's and/or Xaa's have been detected in the Sequence Listing.  
    Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  
    In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 ✓ Invalid <213>  
    Response      Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11      Use of <220>      Sequence(s)      missing the <220> "Feature" and associated numeric identifiers and responses.  
    Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  
    (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12      PatentIn 2.0  
    "bug"      Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13      Misuse of n      n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.



Does Not Comply  
Corrected Diskette Needed

1619

Errors on p. 2

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/757,333C

DATE: 03/21/2002  
TIME: 15:14:12

Input Set : A:\PTO.VSK.txt  
Output Set: N:\CRF3\03212002\I757333C.raw

```

1 <110> APPLICANT: Achilefu, Samuel I.
2   Rajagopalan, Raghavan
3   Dorshow, Richard B.
4   Bugaj, Joseph E.
6   Mallinckrodt Inc.
8 <120> TITLE OF INVENTION: Versatile Hydrophilic Dyes
10 <130> FILE REFERENCE: MRD-67
12 <140> CURRENT APPLICATION NUMBER: US 09/757,333C
13 <141> CURRENT FILING DATE: 2001-01-09
15 <150> PRIOR APPLICATION NUMBER: US 09/484,321
16 <151> PRIOR FILING DATE: 2000-01-18
18 <160> NUMBER OF SEQ ID NOS: 8
20 <170> SOFTWARE: Patent-In Version-3.1
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 8
24 <212> TYPE: PRT
25 <213> ORGANISM: Artificial Sequence
27 <220> FEATURE:
W--> 28 <221> NAME/KEY: MOD RES
29 <222> LOCATION: (1)...(8)
30 <223> OTHER INFORMATION: Xaa at location 1 represents D-Phe. Artificial sequence
31   is completely synthesized.
32 <223> OTHER INFORMATION: Xaa at locations 2 and 7 represents Cys with an
33   intramolecular disulfide bond between two Cys
34   amino acids. Artificial sequence is completely synthesized.
35 <223> OTHER INFORMATION: Xaa at location 4 represents D-Trp. Artificial sequence
36   is completely synthesized.
38 <400> SEQUENCE: 1
W--> 39   Xaa Xaa Tyr Xaa Lys Thr Xaa Thr
40     1               5
43 <210> SEQ ID NO: 2
44 <211> LENGTH: 8
45 <212> TYPE: PRT
46 <213> ORGANISM: Artificial Sequence
48 <220> FEATURE:
W--> 49 <221> NAME/KEY: MOD RES
50 <222> LOCATION: (1)...(8)
51 <223> OTHER INFORMATION: Xaa at location 1 represents D-Phe. Artificial sequence
52   is completely synthesized.
53 <223> OTHER INFORMATION: Xaa at locations 2 and 7 represents Cys with an
54   intramolecular disulfide bond between two Cys
55   amino acids. Artificial sequence is completely synthesized.
56 <223> OTHER INFORMATION: Xaa at location 4 represents D-Trp. Artificial sequence

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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/757,333C

DATE: 03/21/2002

TIME: 15:14:12

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03212002\I757333C.raw

57 is completely synthesized.  
 58 <223> OTHER INFORMATION: Xaa at location 8 represents Thr-OH. Artificial sequence  
 59 is completely synthesized.  
 61 <400> SEQUENCE: 2  
 W--> 62 Xaa Xaa Tyr Xaa Lys Thr Xaa Xaa  
 63 1 5  
 65 <210> SEQ ID NO: 3  
 66 <211> LENGTH: 11  
 67 <212> TYPE: PRT  
 68 <213> ORGANISM: Peptide → invalid response, see error summary sheet item 10  
 70 <400> SEQUENCE: 3  
 71 Gly Ser Gly Gln Trp Ala Val Gly His Leu Met  
 72 1 5 10  
 75 <210> SEQ ID NO: 4  
 76 <211> LENGTH: 11  
 77 <212> TYPE: PRT  
 78 <213> ORGANISM: Peptide - same error  
 80 <400> SEQUENCE: 4  
 81 Gly Asp Gly Gln Trp Ala Val Gly His Leu Met  
 82 1 5 10  
 85 <210> SEQ ID NO: 5  
 86 <211> LENGTH: 8  
 87 <212> TYPE: PRT  
 88 <213> ORGANISM: Peptide - same error  
 90 <400> SEQUENCE: 5  
 91 Asp Tyr Met Gly Trp Met Asp Phe  
 92 1 5  
 95 <210> SEQ ID NO: 6  
 96 <211> LENGTH: 8  
 97 <212> TYPE: PRT  
 98 <213> ORGANISM: Artificial Sequence  
 100 <220> FEATURE:  
 W--> 101 <221> NAME/KEY: MOD RES  
 102 <222> LOCATION: (1)...(8)  
 103 <223> OTHER INFORMATION: Xaa at locations 3 and 6 represents Norleucine.  
 104 Artificial sequence is completely synthesized.  
 106 <400> SEQUENCE: 6  
 W--> 107 Asp Tyr Xaa Gly Trp Xaa Asp Phe  
 108 1 5  
 110 <210> SEQ ID NO: 7  
 111 <211> LENGTH: 8  
 112 <212> TYPE: PRT  
 113 <213> ORGANISM: Artificial Sequence  
 115 <220> FEATURE:  
 W--> 116 <221> NAME/KEY: MOD RES  
 117 <222> LOCATION: (1)...(8)  
 118 <223> OTHER INFORMATION: Xaa at location 1 represents D-Asp. Artificial sequence  
 119 is completely synthesized.  
 120 <223> OTHER INFORMATION: Xaa at locations 3 and 6 represents Norleucine.

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/757,333C

DATE: 03/21/2002

TIME: 15:14:12

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03212002\I757333C.raw

121 Artificial sequence is completely synthesized.  
123 <400> SEQUENCE: 7  
W--> 124 Xaa Tyr Xaa Gly Trp Xaa Asp Phe  
125 1 5  
128 <210> SEQ ID NO: 8  
129 <211> LENGTH: 8  
130 <212> TYPE: PRT  
131 <213> ORGANISM: Artificial Sequence  
133 <220> FEATURE:  
W--> 134 <221> NAME/KEY: MOD RES  
135 <222> LOCATION: (1)...(8)  
136 <223> OTHER INFORMATION: Xaa at location 1 represents D-Lys. Artificial sequence  
137 is completely synthesized.  
139 <400> SEQUENCE: 8  
W--> 140 Xaa Pro Arg Arg Pro Tyr Ile Leu  
141 1 5

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/757,333C

DATE: 03/21/2002

TIME: 15:14:13

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03212002\I757333C.raw

L:28 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1  
L:39 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:49 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:2  
L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:101 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6  
L:107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:116 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7  
L:124 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:134 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:8  
L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/757,333C

DATE: 03/21/2002

TIME: 15:14:12

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03212002\I757333C.raw

57 is completely synthesized.

58 <223> OTHER INFORMATION: Xaa at location 8 represents Thr-OH. Artificial sequence

59 is completely synthesized.

61 <400> SEQUENCE: 2

W--> 62 Xaa Xaa Tyr Xaa Lys Thr Xaa Xaa

63 1 5

65 <210> SEQ ID NO: 3

66 <211> LENGTH: 11

67 <212> TYPE: PRT

68 <213> ORGANISM: Peptide → invalid response, see error summary sheet item 10

70 <400> SEQUENCE: 3

71 Gly Ser Gly Gln Trp Ala Val Gly His Leu Met

72 1 5 10

75 <210> SEQ ID NO: 4

76 <211> LENGTH: 11

77 <212> TYPE: PRT

78 <213> ORGANISM: Peptide - same error

80 <400> SEQUENCE: 4

81 Gly Asp Gly Gln Trp Ala Val Gly His Leu Met

82 1 5 10

85 <210> SEQ ID NO: 5

86 <211> LENGTH: 8

87 <212> TYPE: PRT

88 <213> ORGANISM: Peptide - same error

90 <400> SEQUENCE: 5

91 Asp Tyr Met Gly Trp Met Asp Phe

92 1 5

95 <210> SEQ ID NO: 6

96 <211> LENGTH: 8

97 <212> TYPE: PRT

98 <213> ORGANISM: Artificial Sequence

100 <220> FEATURE:

W--> 101 <221> NAME/KEY: MOD RES

102 <222> LOCATION: (1)...(8)

103 <223> OTHER INFORMATION: Xaa at locations 3 and 6 represents Norleucine.

104 Artificial sequence is completely synthesized.

106 <400> SEQUENCE: 6

W--> 107 Asp Tyr Xaa Gly Trp Xaa Asp Phe

108 1 5

110 <210> SEQ ID NO: 7

111 <211> LENGTH: 8

112 <212> TYPE: PRT

113 <213> ORGANISM: Artificial Sequence

115 <220> FEATURE:

W--> 116 <221> NAME/KEY: MOD RES

117 <222> LOCATION: (1)...(8)

118 <223> OTHER INFORMATION: Xaa at location 1 represents D-Asp. Artificial sequence

119 is completely synthesized.

120 <223> OTHER INFORMATION: Xaa at locations 3 and 6 represents Norleucine.



**Does Not Comply  
Corrected Diskette Needed**

1619

*Errors on p. 2*

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/757,333C

DATE: 03/21/2002

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Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03212002\I757333C.raw

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1 <110> APPLICANT: Achilefu, Samuel I.
2     Rajagopalan, Raghavan
3     Dorshow, Richard B.
4     Bugaj, Joseph E.
6     Mallinckrodt Inc.
8 <120> TITLE OF INVENTION: Versatile Hydrophilic Dyes
10 <130> FILE REFERENCE: MRD-67
12 <140> CURRENT APPLICATION NUMBER: US 09/757,333C
13 <141> CURRENT FILING DATE: 2001-01-09
15 <150> PRIOR APPLICATION NUMBER: US 09/484,321
16 <151> PRIOR FILING DATE: 2000-01-18
18 <160> NUMBER OF SEQ ID NOS: 8
20 <170> SOFTWARE: Patent-In Version 3.1
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 8
24 <212> TYPE: PRT
25 <213> ORGANISM: Artificial Sequence
27 <220> FEATURE:
W--> 28 <221> NAME/KEY: MOD RES
29 <222> LOCATION: (1)...(8)
30 <223> OTHER INFORMATION: Xaa at location 1 represents D-Phe. Artificial sequence
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33     intramolecular disulfide bond between two Cys
34     amino acids. Artificial sequence is completely synthesized.
35 <223> OTHER INFORMATION: Xaa at location 4 represents D-Trp. Artificial sequence
36     is completely synthesized.
38 <400> SEQUENCE: 1
W--> 39  Xaa Xaa Tyr Xaa Lys Thr Xaa Thr
40      1           5
43 <210> SEQ ID NO: 2
44 <211> LENGTH: 8
45 <212> TYPE: PRT
46 <213> ORGANISM: Artificial Sequence
48 <220> FEATURE:
W--> 49 <221> NAME/KEY: MOD RES
50 <222> LOCATION: (1)...(8)
51 <223> OTHER INFORMATION: Xaa at location 1 represents D-Phe. Artificial sequence
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55     amino acids. Artificial sequence is completely synthesized.
56 <223> OTHER INFORMATION: Xaa at location 4 represents D-Trp. Artificial sequence

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TIME: 15:14:12

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Output Set: N:\CRF3\03212002\I757333C.raw

121 Artificial sequence is completely synthesized.  
123 <400> SEQUENCE: 7  
W--> 124 Xaa Tyr Xaa Gly Trp Xaa Asp Phe  
125 1 5  
128 <210> SEQ ID NO: 8  
129 <211> LENGTH: 8  
130 <212> TYPE: PRT  
131 <213> ORGANISM: Artificial Sequence  
133 <220> FEATURE:  
W--> 134 <221> NAME/KEY: MOD RES  
135 <222> LOCATION: (1)...(8)  
136 <223> OTHER INFORMATION: Xaa at location 1 represents D-Lys. Artificial sequence  
137 is completely synthesized.  
139 <400> SEQUENCE: 8  
W--> 140 Xaa Pro Arg Arg Pro Tyr Ile Leu  
141 1 5

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/757,333C

DATE: 03/21/2002

TIME: 15:14:13

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03212002\I757333C.raw

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L:39 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:49 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:2  
L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:101 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6  
L:107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:116 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7  
L:124 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:134 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:8  
L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8